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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,941	01/13/2004	Chiu K. Li	UTL 00354	3298

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Kyocera Wireless Corp.
P. O. Box 928289
San Diego, CA 92129-8289

EXAMINER
RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
2614	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/756,941	LI, CHIU K.	
	Examiner	Art Unit	
	Melur Ramakrishnaiah	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-6,8,10-12,14 and 17-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-6,8,10-12,14 and 17-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4-6, 8, 10-12, 14, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshi (JP08-307497) in view of Toyoda et al. (US2002/0160725A1, hereinafter Toyoda).

Regarding claim 1, Takeshi discloses a communication device comprising: housing (Drawing: 1) including a front surface, a first side surface, and a second side surface, the second side surface being situated to opposite the first side surface and being concave to generally follow a contour of users face (see Drawing: 5, paragraphs: 0030, 0031), an antenna (50, Drawing: 1) situated proximate the first side surface, a speaker (70, Drawing: 1) situated proximate the second side surface, and a microphone (60, Drawing: 1) situated proximate the second side surface , a first and second openings defined proximate the second side surface, the speaker (70, Drawing: 1) situated within the housing to transmit acoustic signals via the first opening, the microphone (60, Drawing: 1) situated within the housing to receive acoustic signals via the second opening, and wherein the second side surface is configured in contact with or proximate a user head (Drawing: 5) and first side is configured to be situated furthest from the user head (Drawings: 1, 5) during communication device use, the second side surface adapted to increase the distance between user head and antenna (50) and

reduce electromagnetic interference between user head and the antenna (paragraphs: 0016 – 0025, 0034-0038).

Regarding claim 14, Takeshi further teaches a wireless communication device comprising: housing (Drawing: 1) including a front surface, a first side surface, and a second side surface, the second side surface being situated to opposite the first side surface and being concave to generally follow a contour of users face (see Drawing: 5, paragraphs: 0030, 0031), an antenna (50, Drawing: 1) situated proximate the first side surface, a transceiver (not shown) coupled to the antenna and disposed within the housing, the transceiver configured to transmit and receive an RF signal, a mobile power source (not shown) coupled to the transceiver for supplying power to the transceiver, speaker (70, Drawing: 1) situated proximate the second side surface, and a microphone (60, Drawing: 1) situated proximate the second side surface , a first and second openings defined proximate the second side surface, the speaker (70, Drawing: 1) situated within the housing to transmit acoustic signals via the first opening, the microphone (60, Drawing: 1) situated within the housing to receive acoustic signals via the second opening, and wherein the second side surface is configured in contact with or proximate a user head (Drawing: 5) and first side is configured to be situated furthest from the user head (Drawings: 1, 5) during communication device use, the second side surface adapted to increase the distance between user head and antenna (50) and reduce electromagnetic interference between user head and the antenna (paragraphs: 0016 – 0025, 0034-0038).

Takeshi differs from the claimed invention in that he does not specifically teach: a printed circuit board situated in the housing, the printed circuit board substantially coplanar with the front surface.

However, Toyoda discloses portable telephone which teaches the following: circuit board (3, fig. 1) situated within the housing, the printed circuit board substantially coplanar with the front surface (fig. 1, paragraph: 0049).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Takeshi's system to provide for the following: circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface as this arrangement would provide means to accommodate necessary circuitry for portable telephone as shown by Toyoda, thus providing a compact way to accommodate all circuit components for a portable telephone.

Claim 8 is rejected on the same basis as claim 1.

Regarding claims 4-6, Takeshi further teaches the following: a first dimension defines a width of the front surface and second dimension defines a width of the second side surface, the second dimension being less than the first dimension (see Drawings: 1, 5), keypad (22, Drawings: 1, 3) on the front surface, display device (12, Drawing 1) situated in the front surface (paragraphs: 0016 – 0025, 0034-0038).

Claims 10-12 and 17-19 are rejected on the same basis as claims 4-6.

Response to Arguments

3. Applicant's arguments filed on 1-8-2007 have been fully considered but they are not persuasive.

Regarding rejection of independent claims 1, 8, 14, Applicannt argues that "Applicant respectfully submits that Examiner has failed to recognize the following language in independent claims 1, 8, and 14 that states that the second side surface is adapted to increase the distance between the user head and the antenna and reduce electromagnetic interference (EMI) between the user head and the antenna. Nowhere does Taskeshi teach this limitation". Regarding this, Applicant's specification discloses the following: The wireless communication device further includes an antenna situated to the first side surface. On the second side surface are defined first and second openings, such as a speaker opening and a microphone opening. A speaker situated within the housing transmits acoustic signals via speaker opening, and a microphone situated within the housing receives acoustic signals via the microphone opening. With this arrangement, the user places the second side surface, rather than the front surface, against or proximate the user's head to speak into the microphone and to hear audio generated by the speaker. Advantageously, the distance between the user's head and the antenna is effectively increased, resulting in significantly reduced EM interference (page 5, lines 7-15 of applicant's specification). This type of arrangement is provided by Taskeshi: The wireless communication device further includes an antenna (50, Drawings 1, 5) situated to the first side surface. On the second side surface are defined first and second openings, such as a speaker opening (70, Drawings 1, 5) and a microphone opening (60, Drawings 1, 5), a speaker situated (70, Drawings 1, 5) within the housing transmits acoustic signals via speaker opening, and a microphone (60, Drawings 1, 5) situated within the housing receives acoustic signals via the microphone

opening. With this arrangement, the user places the second side surface (the surface where speaker 70 and microphone 60 is located), rather than the front surface (see Drawing 1), against or proximate the user's head to speak into the microphone and to hear audio generated by the speaker (see Drawings: 1-5). Since Taskeshi satisfies Applicant arrangement for reducing EM interference, it reads on Applicant's limitation: a first and second openings defined proximate the second side surface, the speaker (70, Drawing: 1) situated within the housing to transmit acoustic signals via the first opening, the microphone (60, Drawing: 1) situated within the housing to receive acoustic signals via the second opening, and wherein the second side surface is configured in contact with or proximate a user head (Drawing: 5) and first side is configured to be situated furthest from the user head (Drawings: 1, 5) during communication device use, the second side surface adapted to increase the distance between user head and antenna (50) and reduce electromagnetic interference between user head and the antenna (paragraphs: 0016 – 0025, 0034-0038). In light of this, Taskeshi not only teaches limitations independent claim 1 and also limitations of dependent claims 4-6. Hence Examiner has met prima facie elements for a 102 rejection of claim 1, 4-6.

Applicant arguments regarding claims 10-12 and 17-19 are noted and to set the record straight, the rejection of claims 10-12 and 17-19 are made under 35 U.S.C 102, because their claim limitations are similar to claims 4-6 which are rejected under 35 U.S.C 102. Because office action lists the rejection of claims right after 103 rejection. Applicant might have mistaken these rejection to be under 35 U.S.C 103. But office

clearly states that rejection of claims 10-12 and 17-19 are rejected on the same basis as claims 4-6 which are clearly rejected under 35 U.S.C 102.

Applicant arguments on page 10 of his response on amended claims are noted but not persuasive as will be explained below. Regarding rejection of amended claims, Applicant argues that "The examiner's October 16, 2006 action does not provide a reference that teaches the second side surface being adapted to increase the distance between the user head and the antenna and reduce electromagnetic interference (EMI) between the user head and the antenna, and a printed circuit board situated within the housing where the printed circuit board is substantially coplanar with the front surface". Regarding this, as explained above, Taskeshi teaches: a first and second openings defined proximate the second side surface, the speaker (70, Drawing: 1) situated within the housing to transmit acoustic signals via the first opening, the microphone (60, Drawing: 1) situated within the housing to receive acoustic signals via the second opening, and wherein the second side surface is configured in contact with or proximate a user head (Drawing: 5) and first side is configured to be situated furthest from the user head (Drawings: 1, 5) during communication device use, the second side surface adapted to increase the distance between user head and antenna (50) and reduce electromagnetic interference between user head and the antenna (paragraphs: 0016 – 0025, 0034-0038) and Toyoda discloses portable telephone which teaches the following: circuit board (3, fig. 1) situated within the housing, the printed circuit board substantially coplanar with the front surface (fig. 1, paragraph: 0049). The combination

of Taskeshi and Toyoda teaches the limitations applicant's amended claims as set forth in the office action above and therefore rejection of claims is maintained.

Applicant further argues that "there is no suggestion or motivation, either in Takeshi and/or Toyoda reference to modify the references or combine references to increase the distance between the user head and antenna reduce EMI, and printed circuit board ... to suppress electromagnetic interference between the printed circuit board and the antenna". Regarding this, as explained above, Takeshi clearly provides an arrangement which provides for increasing the distance between users head and antenna which reduces EMI and Toyoda provides printed circuit board arrangement recited by Applicant claims. One of ordinary skill in the art at the time invention was made would be motivated to modify Takeshi system to include circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface in order to provide means to accommodate necessary circuitry for portable telephone as shown by Toyoda, thus providing a compact way to accommodate all circuit components for a portable telephone.

Applicant further allegs that "Examiner failed to provide any knowledge generally available to one of ordinary skill in the art, to modify Takeshi and/or Toyoda that would result in increasing distance ... Thus, not only examiner ignored the reduction of EMI, but the Examiner has failed to address PCB substantially coplanar to the fronyt face of the communication device". Contrary to Applicants above allegation, Examiner has fully considered all limitations of Applicants claims and addressed them as set forth in the rejection above and also set forth motivation to combine the references.

Regarding applicant argument that there is no discussion in either in Takeshi, Toyoda, or in examiners Action that there is a reasonable expectation of successfully achieving the results of the claimed subject matter. Regarding this, it is not Examiner's responsibility to provide the engineering aspects of construction in combining the references to make the finished product as long as the references teach applicants claim limitations to make prima facie 35 U.S.C 103 rejections of applicant claims.

In light of this explanation, rejection of claims 1, 4-6, 8, 10-12, 14, 17-19 is maintained as set forth in the office action above.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melur Ramakrishnaiah
Primary Examiner
Art Unit 2614